

## **ABSTRACT**

The present invention discloses a method for synthesis of narrowly dispersed colloidal PbS nanocrystals that offer size-tunable near-infrared emission. The stability and processibility of these near-infrared emitting quantum dots makes them ideal materials for device applications. The use of cost-effective and non-pyrophoric precursors as well as the success of larger scale reactions means the present invention provides a method for the industrial scale production of PbS nanocrystals.

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